2008 INFORMATION TECHNOLOGY STRATEGIC PLAN OVERVIEW

A Report Prepared for the

Legislative Finance Committee

By

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INTRODUCTION

This report is written to advise the Legislative Finance Committee (LFC) of potential impacts to fiscal policies and fiscal impacts implied within the 2008 update of the state information technology strategic plan (Appendix A). Montana state government currently operates under the direction of the third statewide plan developed after passage of the Montana Information Technology Act of 2001, which is titled the State of Montana Information Technology Strategic Plan 2006.

The Montana Information Technology Act of 2001 requires updates and distribution of statewide information technology plan updates to agencies by April 1 of each even-numbered year. Agencies are required to develop and have approved by the Department of Administration strategic plans for managing agency information technology resources in compliance with the statewide plan. Agency plans should provide a strategic direction for agencies to manage their information technology resources with the same strategic direction as the entire state government enterprise, but with specifics addressing the agency missions and services.

The statewide plan sets the strategic direction for the state in the use of information technology (IT) resources to provide the services and programs of the state. The goals, objectives, and action items of the statewide plan imply fiscal policies and fiscal impacts the committee may want to consider. However, this update provides no new policy or impact concepts that weren't addressed in the 2006 staff analysis of the plan, because the 2008 update is the same plan as the 2006 plan. Because the state plan is intended to provide general strategic direction for the state, it is not possible to evaluate with any certainty the fiscal impacts or whether a policy change will be proposed. Instead of identifying a specific impact, only an indication of whether the item would increase or decrease the budget pressure will be indicated, when implied. It will not be until after agencies have updated their plans and evaluated the funding options that specific fiscal impacts will be apparent and included in budget or legislation requests.

As stated, the 2008 update to the statewide plan makes no changes to the 2006 plan. As quoted in the 2008 update, "The 2006 Strategic Plan continues to be valid and relevant to the future direction of IT for the state of Montana. Therefore, the 2006 Strategic Plan does not require revisions in direction or strategy and will continue as the 2008 Strategic Plan for the next biennium."

Because the 2008 update is the same as the 2006 plan, this report only restates the issues and concerns raised in the review of the 2006 plan to provide context for the discussion. To the 2006 issues, the report adds a discussion of the LFC actions taken in 2006 in response to those issues and the current status of the issues. For the 2008 update, staff identified one issue of the 2006 plan that the committee may want to consider for action. The report identified the following issues the 2006 LFC considered:

- Unknown risks associated with the planned adoption of an open-source software standard
- Alternative funding plans for information technology resources could reach across agency boundaries and impact legislative processes for prioritizing funding
- An initiative to provide state business continuity in case of disasters or emergencies could cost $25 million

PLAN ISSUES

As stated in the introduction, the 2008 update makes no changes to the 2006 statewide IT strategic plan. The 2008 update of the state information technology strategic plan is limited to a statement of Montana's information technology vision along with goals, objectives, and action items to achieve the vision. One or more objectives are listed for each goal and several action items are listed for each objective. The goals and objectives provide general strategic direction for managing and developing information technology resources and the action items provide the expected actions. For the 2006 plan, staff has evaluated each associated action item to identify if the item implied a departure from current fiscal policy or a potential change of fiscal commitment by the legislature. In response to the staff analysis of the 2006 plan, the 2006 LFC took action, the status of which will be presented in this report.

2006 ISSUE – MEASURABILITY OF GOALS

Montana law specifies that the state strategic information technology plan must specify the statewide mission, goals, and objectives that establish the strategic direction for the use of information technology resources to provide state government services. The update does not specify the mission, but identifies Montana's information technology vision. The goal identified in the plan update and the objectives that support the goals are general statements not readily adaptable to developing measures that could be used to determine success or failure. This is relevant since Montana law also requires development of a biennial report on information technology, and specifies that the biennial report assess the progress toward implementing the state strategic information technology plan. Without measurable goals, how can the required assessment be made? The 2006 plan analysis had no issues with the goals, but questioned how the CIO would assess progress toward the goals without indicating what would be measured.

2006 LFC Action Taken - Goal Measurability Issue

To address the issue, the committee requested the Department of Administration provide a list of measures that would be used to access the plan goals and objectives. In response to the request, the state chief information office (CIO) provided a list of sample measures at the October 2006 LFC meeting that were intended to be used to evaluate progress against the plan. The measures provided by the CIO are included in Appendix B and are available on the committee's web site at:

http://leg.mt.gov/content/publications/fiscal/interim/financecmty_oct2006/Cover_ITPlanPerfMeasures.pdf

Upon reviewing the sample measures provided by the CIO, the LFC raised no further concerns with goal measurability.

2008 Status - Goal Measurability Issue

Given the issue, the provision of the measures, and the LFC reaction in 2006, staff no longer raises goal measurability as an issue.

GOALS OF PLAN UPDATE

The goals identified in the plan update, to attain the Montana information technology vision, are listed below and followed with descriptions and discussions of any potential fiscal impacts or policy implications apparent in the associated action items:

- Create quality jobs and a favorable business climate
- Develop information technology resources in an organized, deliberative, and cost-effective manner
- Improve the quality of life of Montana citizens
- Protect individual privacy and the privacy of information contained within information technology systems
- Improve government services

CREATE QUALITY JOBS AND A FAVORABLE BUSINESS CLIMATE

Plan Objective and Action Items

The objective and action items for the goal to create quality jobs and a favorable business climate focus on expanding Montana's SummitNet network. An expansion of SummitNet would provide its reach into more Montana communities to improve access to public data.

Implications of Plan Objective and Action Items

Expansion of the network will entail costs to purchase and maintain new network connection and routing equipment. Without a specific proposal, it is not apparent if the expansion would result in higher fees for use of the network.

DEVELOP INFORMATION TECHNOLOGY RESOURCES IN AN ORGANIZED, DELIBERATIVE, AND COST-EFFECTIVE MANNER

Plan Objectives and Action Items

The goal to develop information technology resources in an organized, deliberative, and cost-effective manner lists four objectives: 1) implement best practices; 2) implement new technologies; 3) provide stable funding; and 4) implement a workforce development plan.

Implementing best practices focuses primarily on the concepts of developing and expanding information technology project management disciplines and staff, statewide and within agencies. The centerpiece of the objective to implement new technologies is the development of business cases and policies to move toward open-source software and open-document and data exchange standards as state standards. The objective to provide stable funding for information technology mainly involves evaluating current funding levels and approaches, and developing strategies for alternative approaches to enhance funding stability. The objective to implement a workforce development plan involves developing an appropriately sized and competent state employee workforce for information technology.

Implications of Plan Objectives and Action Items

Several of the action items for the above listed objectives imply either a fiscal impact or a change in policy. The objectives and implications are discussed below.

Project Management

The plan calls for expanding agency project management expertise and the project management services of the Information Technology Services Division (ITSD). The plan implies an increase in staff or contracting to provide project management services within agencies or to agencies unable to justify developing the expertise, and to support agency project management staff. Expanding ITSD and agency project management staff implies increased budget pressures to fund additional FTE and training costs. Instilling a stronger emphasis on project management would also increase initial costs for information technology projects, but the intended outcome would likely be better managed projects, leading to lower risks and overruns in schedule and costs.

Open-source

One item of the plan that may potentially be controversial is the implied move toward open-source software and open-document and data exchange standards. Open-source software is software for which the underlying programming code is available to the users so that they may read it, make changes to it, and build new versions of the software incorporating their changes. Open-source software is in contrast to software of a proprietary nature, such as Microsoft Windows operating system, in which the source code is encrypted to prevent users from adapting or modifying the programming code. Potential controversy arises because the move would be a departure from existing practices, which is only being tested in one other state government, Massachusetts. Massachusetts established a state standard that mandates the use of open-document-based products. Open-source software is not untested; it's just not well tested in state government where Microsoft products have enjoyed dominance for years.

Developing a state standard that requires open-source software is a departure from current practice and policy, and could have significant, but unknown consequences. A complete analysis that compares both the benefits and costs, as well as the risks and operational impacts between staying with a proprietary software approach, moving to an open-source approach, or a hybrid of both is needed prior to proceeding with such a significant policy change. The plan calls for developing business cases that would be used to evaluate moving to open-source software and open-document and data exchange standards. Converting to an open-source software standard could result in savings to the state in software licensing costs. The evaluation, called for in the plan, should identify risks and the costs to convert to and operate under a new standard. Until an evaluation is completed the fiscal implications are not available.

The strategy implies a direction that may expose the state to significant but yet unknown risk. The committee may want to have the state chief information officer (CIO) elaborate more on the plans to evaluate and adopt open-source software and open-document and data exchange standards. Because the initiative could have far reaching impacts across all state agencies the committee may want to monitor the evaluation and resulting business cases as the initiative proceeds.

2006 Issue - Committee May Want to Monitor the Open-source Software Initiative

The committee may want to direct the CIO to include updates of the open-source software evaluation as part of regular updates to the committee. Assumed if the committee directs the updates from the CIO is direction to staff to monitor the initiative and identify any issues and concern for the committee.

2006 LFC Action Taken - Monitor the Open-source Software Initiative

The LFC requested the CIO include updates of the open-source software evaluation in regular updates to the LFC.

2008 Status –Monitor the Open-source Software Initiative

Subsequent to the request of the LFC, no reporting on the open-source software initiative was provided.

2008 Action Recommendation - Monitor the Open-source Software Initiative

Since the open-source software initiative is again included in the 2008 plan update and no reports were provided at the 2006 committee's request, the committee may want to reaffirm the actions of the 2006 LFC and request that a report on the initiative be included as a regular part of the CIO report to the LFC.

Alternative Information Technology Funding Approaches

The plan implies a shift in culture from viewing information technology as a discretionary cost to viewing it as an infrastructural asset integral to effective and efficient government operations. Action items in support of the objective, for stable funding of information technology, focus on developing alternative approaches to funding information technology assets, both management systems and equipment. Under current practices, funding requests for systems in agencies are evaluated and approved in relative isolation and separately based on the agency and program structure of HB 2, except when they are included in the capital projects or bonding legislation.

2006 Issue – Alternative Funding Approaches for Information Technology

Under current practices when multiple agencies collaborate on a system, each agency requests funding for its portion of the system. The plan implies a different approach that may include reviewing all information technology requests in one legislative committee, developing an information technology funding pool with a dedicated source of revenue, or other approaches that would provide more stability to the funding of critical information technology projects that have a statewide impact or for agencies with more restrictive fiscal resources. Since the plan provides no specific alternatives, the impacts are not apparent. Potential impacts could range from directing a portion of new or existing revenue to a special information technology fund to changing the process for reviewing information technology budget requests during the legislative session. For some alternatives, statute would need to be amended, while other alternatives could be implemented through agreements between the legislature and other branches of state government that specify agreement on budgeting processes and procedures.

2006 LFC Action Taken - Alternative Funding Approaches for Information Technology

The LFC requested the CIO include updates of the actions and progress for the alternative-funding objective in regular updates to the LFC.

2008 Status – Alternative Funding Approaches for Information Technology

Subsequent to the request of the LFC, no reporting on the alternative-funding objective was provided. However, the alternative-funding objective has evolved into the process used by the executive during the 2007 Legislature, in which major IT projects were requested in a single bill similar to how Long-range Building Program funding is requested. HB 14 of the regular session and HB 4 of the May special session requested funding for major IT projects. The executive has stated the intention to continue this process for the 2009 Legislature and has initiated a project to add an IT project module to the Montana Budgeting Analysis and Reporting System (MBARS) that will be similar to the capital projects module currently in the system.

Implement a Workforce Development Plan

The plan lists two action items for the objective to implement a workforce development plan that imply fiscal impacts beyond current funding: 1) expand information technology training; and 2) establish appropriate employee/contractor balance. To reach the goal, the plan first calls for determining the information technology skills and staffing needs of the state, then determining the most appropriate balance between contracted and state FTE staff resources. Once an appropriate FTE level has been determined, the plan calls for evaluating the skills of the existing state FTE and developing, through training and recruitment, the appropriate skills and proficiencies as identified in the needs assessment.

Expanding training to keep staff current with the changing technology would put increased pressure on agency budgets to fund more training. Establishing an appropriate balance between contracted and FTE staff levels would likely lower budget pressures, assuming the current staffing level, made up of state FTE and contractors. is adequate to meet state needs and the appropriate balance between state FTE and contractors is achieved with cost effectiveness a major factor in determining the balance.

2008 Status – Implement a Workforce Development Plan

Workforce development for IT professionals is still being developed, but the following progress has been made:

- The CIO has established a position to spearhead the efforts first for the Information Technology Services Division (ITSD) of the Department of Administration and eventually for process transfer to other agencies as requested
- A contract has been awarded to develop skills and aptitude tests that will be given to all existing IT employees and used as a part of the hiring process. The testing tools will be used to develop a baseline skills inventory for all ITSD IT professionals
- Baseline skills test results will be used in the performance appraisal and development plan processes
- Baseline skills test results will be used to plan career plans and training for IT professionals
- A pilot performance appraisal system is being developed based on an existing system used in the Department of Labor and Industries

IMPROVE THE QUALITY OF LIFE OF MONTANA CITIZENS

Plan Objectives and Action Items

The goal to improve the quality of life of Montana citizens focuses on improving public safety communications in Montana. The action items for improving public safety communications with implied fiscal implications involve expanding wireless enhanced 9-1-1 emergency telecommunications services to all Montana public safety answering points and identify funding scenarios for interoperable public safety radio and are discussed below.

Improve Public Safety Communications

2006 Discussion – Improve Public Safety Communications

The plan calls for identifying and exploring additional funding scenarios for interoperable public safety radios. The Interoperability Montana Project is a collaborative project between nine Montana consortia and three state

agencies (Department of Transportation, Montana Highway Patrol, and Department of Natural Resources), which represents all 56 counties and seven tribal nations. Past funding has been from a variety of state, federal, and other grant sources. The basic purpose of the project is to improve communications between local law enforcement, state and federal government, and tribal authorities by providing interoperable digital voice and data radio capabilities along the Montana/Canada boarder. It has been estimated that $150 million from all sources would be needed to develop interoperable radio communications across the entire state. So, the action item of the plan would imply some level of state fiscal impact to continue the developing interoperability across the state. The specific level of future state funding cannot be determined from the plan details.

2008 Status – Improve Public Safety Communications

Past funding for interoperability projects included:

- 2007 biennium - $3.5 million of one-time-only general fund moneys was appropriated as a direct state contribution to the Northern Tier Interoperability Project
- 2009 biennium - HB 4 of the May 2007 Special Session included nearly $8.1 million for two public safety radio projects: 1) public safety radio consortium; and 2) public safety radio interoperability.

So far, two concept demonstration projects have or are scheduled for completion with past funding:

- Lewis and Clark County (completed)
- Northern Tier Interoperability Project along the hi-line and Canadian border (scheduled for completion in fall 2008)

The next phase is expected to add 29 additional sites into the system along the more populous areas of the state's central and southern regions. The Interoperability Montana Project fact sheet included in Appendix C provides information and a visual indication of how much of the state the project phases have and would cover. Public safety funding initiatives for the 2011 biennium have not yet been developed, so the fiscal impacts of next phase can not be determined at this time.

PROTECT INDIVIDUAL PRIVACY AND THE PRIVACY OF INFORMATION CONTAINED WITHIN INFORMATION TECHNOLOGY SYSTEMS

The objectives and action items for the goal to protect individual privacy and the privacy of information contained within information technology systems focus on adopting standards, assessing risk, and developing a security risk mitigation plan. As long as existing FTE are used to carry out the planned activities, the goal should not impose an appreciable fiscal impact beyond present law funding. The security risk mitigation plan could recommend policy changes that may need statutory changes to implement, but specific policy impacts cannot be identified until the risk mitigation plan is developed. The security risk mitigation plan will initiate a multiphase, multiyear implementation that will be tied to state budgeting cycles and will begin with an implementation plan scheduled to be complete July 1, 2008.

IMPROVE GOVERNMENT SERVICES

Plan Objectives and Action Items

The goal to improve government services lists three objectives: 1) expand electronic government services; 2) expand geographic information systems; and 3) expand business continuity and disaster recovery planning.

Expanding electronic government services focuses on providing services via the official state Internet website by proving an intuitive common look and feel, improving accessibility for the visually impaired, and increasing the variety of services offered via electronic means. Most electronic government services are provided through a self-funded cooperative effort between the state and private industry, so new services would not likely have direct fiscal impacts to the state. Expanding geographic information systems (GIS) involves efforts to include geographic information into new state information technology system designs and to make geographic information more readily available to citizens and other state agencies via electronic means. Expanding business continuity and disaster recovery planning involves expanding agency and local government planning to

remain operational during natural or man-made disasters and emergencies or recoverable following a disaster or emergency.

Implications of Plan Objectives and Action Items

The action items with an implied fiscal implication for the above objectives are described below.

Expand Electronic Government Services

Expanding electronic government services available electronically to the public makes interacting with state government easier, quicker, and more convenient to those interacting with state government. Electronic government services are provided directly by agencies or through a self-funded portal currently awarded to a private company called Montana Interactive. Electronic government services offered through the self-funded portal are funded through convenience fees as allowed in statute and are paid by customers as a fee for the convenience of quicker service that doesn't require traveling to a state office to conduct business. Of the self-funded portal services 86 services were offered in 2005 to nearly 1.5 million visits to the service sites. These service numbers are up from 10 service offerings and 50,500 visits in 2001.

2008 Status – Expand Electronic Government Services

Electronic government services have grown since approval of the 2006 plan update, with 118 services offered in 2007 and slightly more than 3.1 million visits to the self-funded portal service sites. 2009 biennium budgets for agencies also included funding for electronic government service initiatives, such as the $4.7 million for the Department of Revenue to provide free electronic tax filing services to citizens and businesses of Montana.

Geographic Information as a Part of System Design Requirements

Requiring new agency applications and systems to consider geographic information system data as a part of their design would likely increase the complexity and costs of new systems during the development phase and would add costs to maintain the systems and data after development and implementation.

2008 Status – Geographic Information Systems

The CIO has added a third deputy CIO to his organization through the addition of a geographic information officer (GIO) to provide the focal point for state GIS.

Expand Business Continuity and Disaster Recovery Planning

An action item of the objective to expand business continuity and disaster recovery planning calls for replacing the state's existing data center in Helena with a new state of the art data center and establishing a redundant data backup and recovery site outside of Helena. Rough estimates to build a new data center and a recovery site remote from Helena total $25.0 million.

2008 Status –Enterprise System Service Center

HB 4 (1997 May Special Session) appropriated $14.5 million of total funds to construct a new enterprise system service center (data center) in Helena and a backup center in a site remote to Helena. The project is currently in the site selection phase for both centers. According to a press release from the CIO, an announcement of the preferred site for the remote data center will be made on March 4, 2008. Once sites are selected, the detail construction planning can be completed. The project is expected to be completed in March 2010.

CONCLUSION

The state information technology strategic plan provides strategic direction for state agencies to develop agency information technology strategic plans to administer their information technology resources to meet the agency specific missions but in a consistent manner across state government. Because the state plan provides broad strategic guidance with few specific requirements and contains no specific initiatives, budgetary and policy impacts of the plan are speculative. The 2008 plan update is a restatement of the 2006 plan so no new policy

concepts are presented. LFC actions taken on issues identified with the 2006 plan are identified and the status of the issues and plan components are provided. Only one issue raised to the 2006 LFC is again raised and a recommendation to request regular CIO updates on the topic of open-source software evaluation is presented.

APPENDIX A

STATE OF MONTANA

INFORMATION TECHNOLOGY STRATEGIC PLAN

2008

APPENDIX B

SAMPLE PERFORMANCE MEASURES FOR THE STATEWIDE INFORMATION TECHNOLOGY PLAN

APPENDIX C

INTEROPERABILITY MONTANA PROJECT FACT SHEET